

# Census Geocoder User Guide

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## Introduction

This guide was created to provide additional information for users when selecting a geocoding option. Within this guide, there are examples of input and output for each of the geocoding options, information on how to set up a spreadsheet for Batch Address Processing, and an Acronym and Terms page.

The Census Geocoder allows the user to submit an address, batch of addresses, or location coordinates for geocoding. *Figure 1* shows the address entry options that are available for both Locations and Geographies. Geocoding results are derived from address ranges within the Topologically Integrated Geographic Encoding and Referencing database (TIGER). Address ranges within TIGER include all possible structure numbers even though actual structures may not exist. Coordinate results are interpolated, or approximated, based on the TIGER address ranges. All address examples in this User Guide are Non-Title 13 data. More information about Title 13 can be found [here](#).

*Figure 1*



### One Line Address Processing

#### [Location Input](#)

In One Line Address Processing shown in *Figure 2*, the user enters the entire address, separated by commas, within a single text box. The City, State, or ZIP Code can be blank for this option. However, a comma should separate the missing data. For example: 101 Marietta St without the City and State information would be entered as 101 Marietta St,,, 30303. See *Figure 2a* for an example. The user also selects the desired Benchmark. There are three menu choices for Benchmark. The Benchmark options shown in all figures included in this User Guide represent the options available at the time the User Guide was created. The available options may be different than what is shown in the figures based on when the User Guide is referenced. To process the geocoding request the “Get Results” button is selected.

Figure 2

Find Address Location

One Line Address : 101 Marietta St, Atlanta, GA, 30303

Benchmark : Public\_AR\_Current

Get Results

- Public\_AR\_Current
- Public\_AR\_ACS2021
- Public\_AR\_Census2020

Figure 2a

Find Address Location

One Line Address : 101 Marietta St,,30303

Benchmark : Public\_AR\_Current

Get Results

- Public\_AR\_Current
- Public\_AR\_ACS2021
- Public\_AR\_Census2020

## Location Output

The output information includes the matched address, interpolated coordinates, Tigerline ID, and Tigerline ID Side of the matched address. The term “matched” refers to addresses that are geocoded or matched to address ranges within TIGER. The output returned includes address range information by field as shown in *Figure 3*.

Figure 3

Input:

One Line Address: 101 Marietta St, Atlanta, GA, 30303

Benchmark: Public\_AR\_Current (4)

---

Matched Address: 101 MARIETTA ST, ATLANTA, GA, 30303

Interpolated Longitude (X) Coordinates: -84.39215

Interpolated Latitude (Y) Coordinates: 33.75649

Tigerline ID: 17344104

Tigerline ID Side: R

---

Address Range Components:

Tiger Address Range: 101 - 115

Street PreQualifier:

Street PreDirection:

Street PreType:

Street Name: MARIETTA

Street SuffixType: ST

Street SuffixDirection:

Street SuffixQualifier:

City: ATLANTA

State: GA

ZIP Code: 30303

## One Line Address Processing

### Geography Input

In One Line Address Processing, shown in *Figure 4*, the user enters the entire address, separated by commas, within a single text box. The City, State, or ZIP Code can be blank for this option. However, a comma should separate the missing data. For example: 101 Marietta St without the City and State information would be entered as 101 Marietta St,,, 30303. See *Figure 2a* for an example. For One Line Address Processing Geography searches, the user selects the desired Benchmark and Vintage. There are three menu choices for Benchmark. Public\_AR\_Current, Public\_AR\_ACS2021, and Public\_AR\_Census2020. Vintage selection options are dependent on the option that is chosen for Benchmark. A complete list of the available Vintage options at the time this User Guide was created is listed in Appendix B. To process the geocoding request the “Get Results” button is selected.

Figure 4

The screenshot shows a web form titled "Find Address Geographies". It contains a text input field for "One Line Address" with the value "101 Marietta St, Atlanta, GA, 30303". Below this are two dropdown menus: "Benchmark :" with "Public\_AR\_Current" selected, and "Vintage :" with "Current\_Current" selected. A "Get Results" button is positioned below the dropdowns. Two callout boxes show the available options for each dropdown. The first callout, for the Benchmark dropdown, lists "Public\_AR\_Current", "Public\_AR\_ACS2021", and "Public\_AR\_Census2020". The second callout, for the Vintage dropdown, lists "Current\_Current", "Census2010\_Current", "ACS2017\_Current", "ACS2018\_Current", "ACS2019\_Current", "Census2020\_Current", and "ACS2021\_Current". Blue arrows point from the selected options in the dropdowns to their respective callout boxes.

### Geography Output

The Geography output produced by this option provides the same results as the One Line and Parsed Address Processing for Locations, but also provides Census Geography associated with the matched address. This additional information includes the following: States, Counties, Census Tracts, Census Blocks, Combined Statistical Areas, Congressional districts, County Subdivisions, Incorporated Places, Census Designated Places (if applicable to geocoded address), State Legislative Districts - Upper, and State Legislative Districts - Lower. See *Figure 5* for an example of the information provided in this output. Keep in mind that the actual output will be displayed as a list on the screen.

Figure 5

<b>Input:</b> One Line Address: 101 Marietta St, Atlanta, GA, 30303 Benchmark: Public_AR_Current (4) Vintage: Current_Current (4) <hr/> <b>Matched Address:</b> 101 MARIETTA ST, ATLANTA, GA, 30303 Interpolated Longitude (X) Coordinates: -84.39215 Interpolated Latitude (Y) Coordinates: 33.75649 Tigerline ID: 17344104 Tigerline ID Side: R <hr/> <b>Address Range Components:</b> Tiger Address Range: 101 - 115 Street PreQualifier: Street PreDirection: Street PreType: Street Name: MARIETTA Street SuffixType: ST Street SuffixDirection: Street SuffixQualifier: City: ATLANTA State: GA ZIP Code: 30303 <hr/> <b>Geographies:</b>  <b>2018 State Legislative Districts - Upper:</b> STATE CODE: 13 GEOID: 13036 CENTLAT: +33.7068699 AREAWATER: 238677 NAME: State Senate District 36 CENTLON: -084.3975737 AREALAND: 132896539  <b>States:</b> STATE CODE: 13 GEOID: 13 CENTLAT: +32.6279417 AREAWATER: 4418749570 NAME: Georgia CENTLON: -083.4165286 AREALAND: 149486234922	<b>Combined Statistical Areas:</b> GEOID: 122 CENTLAT: +33.7283603 AREAWATER: 671939141 NAME: Atlanta-Athens-Clarke County--Sandy Springs, GA-AL CSA CSA: 122 CENTLON: -084.3485918 AREALAND: 33807581912  <b>County Subdivisions:</b> STATE CODE: 13 COUSUB: 90144 GEOID: 1312190144 CENTLAT: +33.7614875 COUNTY CODE: 121 AREAWATER: 7380138 NAME: Atlanta CCD CENTLON: -084.4705290 AREALAND: 612256244  <b>Incorporated Places:</b> STATE CODE: 13 GEOID: 1304000 CENTLAT: +33.7627819 AREAWATER: 2585706 PLACE: 04000 NAME: Atlanta city PLACECC: C1 CENTLON: -084.4220552 AREALAND: 350456124 PLACENS: 02403126  <b>Counties:</b> STATE CODE: 13 GEOID: 13121 CENTLAT: +33.7898950 COUNTY CODE: 121 AREAWATER: 19666288 NAME: Fulton County CENTLON: -084.4676140 AREALAND: 1364133162	<b>2018 State Legislative Districts - Lower:</b> STATE CODE: 13 GEOID: 13057 CENTLAT: +33.7552994 AREAWATER: 101410 NAME: State House District 57 CENTLON: -084.4053217 AREALAND: 30130628  <b>116th Congressional Districts:</b> STATE CODE: 13 GEOID: 1305 CENTLAT: +33.7072227 AREAWATER: 4984703 NAME: Congressional District 5 CENTLON: -084.4014613 AREALAND: 686302641  <b>2020 Census Blocks:</b> STATE CODE: 13 GEOID: 131210119011010 CENTLAT: +33.7569804 COUNTY CODE: 121 AREAWATER: 0 NAME: Block 1010 CENTLON: -084.3920110 TRACT CODE: 011901 AREALAND: 7239 BLOCK CODE: 1010  <b>Census Tracts:</b> STATE CODE: 13 GEOID: 13121011901 CENTLAT: +33.7542232 COUNTY CODE: 121 AREAWATER: 0 NAME: Census Tract 119.01 CENTLON: -084.3854641 TRACT CODE: 011901 AREALAND: 1173939
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## Parsed Address Processing

### Location Input

In Parsed Address Location Processing, shown in *Figure 6*, the user enters the House number with the Street name, City, State, and ZIP Code into text boxes. The City, State, or ZIP Code can be blank for this option (See *Figure 6a*). The user selects the desired Benchmark. To process the request the “Get Results” button is selected.

Figure 6

Find Address Location

House number & Street name : 101 Marietta St

City : Atlanta

State : GA

ZIP Code : 30303

Benchmark : Public\_AR\_Current

Get Results

Public\_AR\_Current  
Public\_AR\_ACS2021  
Public\_AR\_Census2020

Figure 6a

The screenshot shows a web form titled "Find Address Location". It contains several input fields: "House number & Street name" (containing "101 Marietta St"), "City", "State", "ZIP Code" (containing "30303"), and "Benchmark" (a dropdown menu). A "Get Results" button is located below the "Benchmark" field. The "Benchmark" dropdown menu is open, showing three options: "Public\_AR\_Current", "Public\_AR\_ACS2021", and "Public\_AR\_Census2020". A blue arrow points from the "Public\_AR\_Current" option in the dropdown to the "Public\_AR\_Current" text in the "Benchmark" field label.

## Location Output

Returned information includes the complete matched address, interpolated coordinates, Tigerline ID, and Tigerline ID Side of the matched address. The term “matched” refers to addresses that are geocoded matched to address ranges within TIGER. The output returned to the user includes address range information by field as shown in *Figure 7*.

Figure 7

The screenshot shows a web form titled "Location Output". It contains several sections of text: "Input:" (Address: 101 marietta St, City: Atlanta, State: GA, ZIP Code: 30303, Benchmark: Public\_AR\_Current (4)), "Matched Address: 101 MARIETTA ST, ATLANTA, GA, 30303", "Interpolated Longitude (X) Coordinates: -84.39215", "Interpolated Latitude (Y) Coordinates: 33.75649", "Tigerline ID: 17344104", "Tigerline ID Side: R", "Address Range Components:", "Tiger Address Range: 101 - 115", "Street PreQualifier:", "Street PreDirection:", "Street PreType:", "Street Name: MARIETTA", "Street SuffixType: ST", "Street SuffixDirection:", "Street SuffixQualifier:", "City: ATLANTA", "State: GA", "ZIP Code: 30303".

## Parsed Address Processing

### Geography Input

In Parsed Address Processing, shown in *Figure 8*, the user enters the address into appropriate text boxes. Then the user selects a Benchmark and Vintage. The Vintage selection options are dependent on the option that is chosen for Benchmark. A complete list of the Vintage options by selected Benchmark available at the time this User Guide was created, is listed in Appendix B. Available options for Benchmark and Vintage change as the Census Geocoder data is updated. To process the request the “Get Results” button is selected.

Figure 8

The screenshot shows a web form titled "Find Address Geographies". It contains several input fields: "House number & Street name" (101 Marietta St), "City" (Atlanta), "State" (GA), and "ZIP Code" (30303). Below these are two dropdown menus: "Benchmark" (set to "Public\_AR\_Current") and "Vintage" (set to "Current\_Current"). A "Get Results" button is located below the dropdowns. Two blue arrows originate from the dropdowns: one from the "Benchmark" dropdown pointing to a list of options (Public\_AR\_Current, Public\_AR\_ACS2021, Public\_AR\_Census2020), and another from the "Vintage" dropdown pointing to a list of options (Current\_Current, Census2010\_Current, ACS2017\_Current, ACS2018\_Current, ACS2019\_Current, Census2020\_Current, ACS2021\_Current).

### Geography Output

The Geography Output provides the same fields as the One Line and Parsed Address Processing for Locations, but also provides Census Geography associated with the matched address. Additional information includes States, Counties, Census Tracts, Census Blocks, Combined Statistical Areas, Congressional districts, County Subdivisions, Incorporated Places, Census Designated Places (if applicable to geocoded address), State Legislative Districts - Upper, and State Legislative Districts - Lower. See *Figure 9* for an example of the information provided in this output. Keep in mind that the actual output will be displayed as a list on the screen.



Figure 9

<b>Input:</b> Address: 101 Marietta St City: Atlanta State: GA ZIP Code: 30303 Benchmark: Public_AR_Current (4) Vintage: Current_Current (4) <hr/> <b>Matched Address:</b> 101 MARIETTA ST, ATLANTA, GA, 30303 Interpolated Longitude (X) Coordinates: -84.39215 Interpolated Latitude (Y) Coordinates: 33.75649 Tigerline ID: 17344104 Tigerline ID Side: R <hr/> <b>Address Range Components:</b> Tiger Address Range: 101 - 115 Street PreQualifier: Street PreDirection: Street PreType: Street Name: MARIETTA Street SuffixType: ST Street SuffixDirection: Street SuffixQualifier: City: ATLANTA State: GA ZIP Code: 30303 <hr/> <b>Geographies:</b> <b>2018 State Legislative Districts - Upper:</b> STATE CODE: 13 GEOID: 13036 CENTLAT: +33.7068699 AREAWATER: 238677 NAME: State Senate District 36 CENTLON: -084.3975737 AREALAND: 132896539  <b>States:</b> STATE CODE: 13 GEOID: 13 CENTLAT: +32.6279417 AREAWATER: 4418749570 NAME: Georgia CENTLON: -083.4165286 AREALAND: 149486234922	<b>Combined Statistical Areas:</b> GEOID: 122 CENTLAT: +33.7283603 AREAWATER: 671939141 NAME: Atlanta-Athens-Clarke County--Sandy Springs, GA-AL CSA CSA: 122 CENTLON: -084.3485918 AREALAND: 33807581912  <b>County Subdivisions:</b> STATE CODE: 13 COUNSUB: 90144 GEOID: 1312190144 CENTLAT: +33.7614875 COUNTY CODE: 121 AREAWATER: 7380138 NAME: Atlanta CCD CENTLON: -084.4705290 AREALAND: 612256244  <b>Incorporated Places:</b> STATE CODE: 13 GEOID: 1304000 CENTLAT: +33.7627819 AREAWATER: 2585706 PLACE: 04000 NAME: Atlanta city PLACECC: C1 CENTLON: -084.4220552 AREALAND: 350456124 PLACENS: 02403126  <b>Counties:</b> STATE CODE: 13 GEOID: 13121 CENTLAT: +33.7898950 COUNTY CODE: 121 AREAWATER: 19666288 NAME: Fulton County CENTLON: -084.4676140 AREALAND: 1364133162  <b>2018 State Legislative Districts - Lower:</b> STATE CODE: 13 GEOID: 13057 CENTLAT: +33.7552994 AREAWATER: 101410 NAME: State House District 57 CENTLON: -084.4053217 AREALAND: 30130628	<b>116th Congressional Districts:</b> STATE CODE: 13 GEOID: 1305 CENTLAT: +33.7072227 AREAWATER: 4984703 NAME: Congressional District 5 CENTLON: -084.4014613 AREALAND: 686302641  <b>2020 Census Blocks:</b> STATE CODE: 13 GEOID: 131210119011010 CENTLAT: +33.7569804 COUNTY CODE: 121 AREAWATER: 0 NAME: Block 1010 CENTLON: -084.3920110 TRACT CODE: 011901 AREALAND: 7239 BLOCK CODE: 1010  <b>Census Tracts:</b> STATE CODE: 13 GEOID: 13121011901 CENTLAT: +33.7542232 COUNTY CODE: 121 AREAWATER: 0 NAME: Census Tract 119.01 CENTLON: -084.3854641 TRACT CODE: 011901 AREALAND: 1173939
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## Batch Address Processing

### Location Input

For Batch Address Location Processing shown in *Figure 10*, the user submits a batch of addresses up to 10,000. The accepted file formats include CSV, XLS, XLSX, Text (TXT), and Data (DAT). The user selects an address file for submission by clicking the Choose File button. Then the user will select a Benchmark. Batch file processing begins by selecting the “Get Results” button. The example shown in *Figure 10* may be slightly different depending on what browser is being used.

Figure 10

Find Batch Address Locations

Select Address File :  No file chosen

Benchmark : 

Public\_AR\_Current

Get Results

Batch files may not exceed 10,000 records.  
[Download a sample CSV file here](#)

Public\_AR\_Current

Public\_AR\_ACS2021

Public\_AR\_Census2020

Once file processing completes, the results will appear as a downloaded file. Where the downloaded file appears is dependent on which internet browser is used to process the address

file. The results file and input file will be the same format apart from TXT and DAT files, which return results in CSV format.

### Location Output

This Location output, *Figure 11*, returns a spreadsheet of results, which includes headers for XLS and XLSX file formats. Data (DAT) or Text (TXT) files are in CSV format with no headers. The results include Record ID Number, Input Address, TIGER Address Range Match Indicator, TIGER Match Type, TIGER Output Address, Interpolated Longitude and Latitude, Tigerline ID, and Tigerline ID Side.

*Figure 11*

	A	B	C	D	E	F	G	H
	RECORD ID		TIGER ADDRESS RANGE MATCH INDICATOR	TIGER MATCH TYPE		INTERPOLATED LONGITUDE AND LATITUDE	TIGERLINE ID	TIGERLINE ID SIDE
1	NUMBER	INPUT ADDRESS			TIGER OUTPUT ADDRESS			
2								
3	1	101 Marietta St, Atlanta, GA, 30303	Match	Exact	101 MARIETTA ST, ATLANTA, GA, 30303	-84.39215,33.75649	17344104	R
4	2	1111 W 22nd St, Chicago, IL, 60523	Match	Non_Exact	1111 W 22ND ST, OAK BROOK, IL, 60523	-87.94593,41.846985	112548696	L
5	3	6950 W Jefferson Ave, Lakewood, CO, 80235	Match	Exact	6950 W JEFFERSON AVE, LAKEWOOD, CO, 80235	-105.08018,39.649918	177321993	L
6	4	2300 West Empire Ave, Burbank, CA, 91504	Match	Exact	2300 W EMPIRE AVE, BURBANK, CA, 91504	-118.33588,34.19183	141592402	L
7	5	32 Old Slip, New York, NY, 10005	Match	Exact	32 OLD SLIP, NEW YORK, NY, 10005	-74.00817,40.703686	59660710	L

## Batch Address Processing

### Geography Input

In Geographies Batch Address Processing, shown in *Figure 12*, the user submits a batch of addresses up to 10,000. The accepted file formats include CSV, XLS, XLSX, Text (TXT), and Data (DAT). The user selects an address file by clicking the Choose File button. Then the user selects a Benchmark and Vintage. Vintage selection options are dependent on the option that is chosen for Benchmark. A complete list of the Vintage options is listed in Appendix B. Available options for Benchmark and Vintage change as the Census Geocoder data is updated. Geographies Batch Address processing begins by selecting the “Get Results” button.

*Figure 12*

Find Batch Address Geographies

Select Address File :  No file chosen

Benchmark :

Vintage :

Batch files may not exceed 10,000 records.  
Download a sample CSV file here

**Public\_AR\_Current**  
Public\_AR\_ACS2021  
Public\_AR\_Census2020

**Current\_Current**  
Census2010\_Current  
ACS2017\_Current  
ACS2018\_Current  
ACS2019\_Current  
Census2020\_Current  
ACS2021\_Current

Once file processing completes, the results will appear as a downloaded file. Where the downloaded file appears is dependent on which internet browser is used to process the address file. The results file and input file will be the same format apart from TXT and DAT files, which return results in CSV format.

## Geography Output

Batch Address Processing for Geographies returns a spreadsheet similar to the Batch Address Processing for Locations. The difference is that Census geography information (XLS or XLSX file formats) is included as shown in *Figure 13*. The Batch Address Processing for Geographies includes State, County, Tract and Block Codes.

Figure 13

	A	B	C	D	E	F	G	H	I	J	K	L
	RECORD ID		TIGER ADDRESS RANGE MATCH INDICATOR	TIGER MATCH TYPE		INTERPOLATED LONGITUDE AND LATITUDE	TIGERLINE ID	TIGERLINE ID SIDE	STATE CODE	COUNTY CODE	TRACT CODE	BLOCK CODE
1	NUMBER	INPUT ADDRESS			TIGER OUTPUT ADDRESS							
2												
3	1	101 Marietta St, Atlanta, GA, 30303	Match	Exact	101 MARIETTA ST, ATLANTA, GA, 30303	-84.39215,33.75649	17344104	R	13	121	011901	1010
4	2	1111 W 22nd St, Chicago, IL, 60523	Match	Non_Exact	1111 W 22ND ST, OAK BROOK, IL, 60523	-87.94593,41.846985	112548696	L	17	043	844601	1063
5	3	6950 W Jefferson Ave, Lakewood, CO, 80235	Match	Exact	6950 W JEFFERSON AVE, LAKEWOOD, CO, 80235	-105.08018,39.649918	177321993	L	08	059	011904	2010
6	4	2300 West Empire Ave, Burbank, CA, 91504	Match	Exact	2300 W EMPIRE AVE, BURBANK, CA, 91504	-118.33588,34.19183	141592402	L	06	037	310501	1025
7	5	32 Old Slip, New York, NY, 10005	Match	Exact	32 OLD SLIP, NEW YORK, NY, 10005	-74.00817,40.703686	59660710	L	36	061	000700	7007

## Geographic Coordinates

### Geography Input

The Geographic Coordinates search option shown in *Figure 14*, allows the user to submit Longitude (X) and Latitude (Y) coordinate values to determine the Census Geography associated with that location. The user will then select a Benchmark and Vintage. Vintage selection options are dependent on the option that is chosen for Benchmark. A complete list of the Vintage options is listed in Appendix B. To process the request the “Get Results” button is selected.

Figure 14

Find Geographic Coordinates

Longitude (X) :

-84.39215

Latitude (Y) :

33.75649

Benchmark :

Public\_AR\_Current

Vintage :

Current\_Current

Get Results

Public\_AR\_Current

Public\_AR\_ACS2021

Public\_AR\_Census2020

Current\_Current

Census2010\_Current

ACS2017\_Current

ACS2018\_Current

ACS2019\_Current

Census2020\_Current

ACS2021\_Current

## Geography Output

The Geographic Coordinate output shown in *Figure 15* produces results based on the information entered by the user. Geography information returned also includes the following: States, Counties, Census Tracts, Census Blocks, Combined Statistical Areas, Congressional Districts, County Subdivisions, Incorporated Places, Census Designated Places (if applicable to geocoded address), State Legislative Districts - Upper, and State Legislative Districts - Lower. *Figure 15* is an example of the information provided in this output. Keep in mind that the actual output will be displayed as a list on the screen.

Figure 15

<b>Input:</b> Longitude (X): -84.39215 Latitude (Y): 33.75649 Benchmark: Public_AR_Current (4) Vintage: Current_Current (4)	<b>Incorporated Places:</b> STATE CODE: 13 GEOID: 1304000 CENTLAT: +33.7627819 AREAWATER: 2585706 PLACE: 04000 NAME: Atlanta city PLACECC: C1 CENTLON: -084.4220552 AREALAND: 350456124 PLACENS: 02403126	<b>2020 Census Blocks:</b> STATE CODE: 13 GEOID: 131210119011010 CENTLAT: +33.7569804 COUNTY CODE: 121 AREAWATER: 0 NAME: Block 1010 CENTLON: -084.3920110 TRACT CODE: 011901 AREALAND: 7239 BLOCK CODE: 1010
<b>Geographies:</b> <b>2018 State Legislative Districts - Upper:</b> STATE CODE: 13 GEOID: 13036 CENTLAT: +33.7068699 AREAWATER: 238677 NAME: State Senate District 36 CENTLON: -084.3975737 AREALAND: 132896539	<b>Counties:</b> STATE CODE: 13 GEOID: 13121 CENTLAT: +33.7898950 COUNTY CODE: 121 AREAWATER: 19666288 NAME: Fulton County CENTLON: -084.4676140 AREALAND: 1364133162	<b>Census Tracts:</b> STATE CODE: 13 GEOID: 13121011901 CENTLAT: +33.7542232 COUNTY CODE: 121 AREAWATER: 0 NAME: Census Tract 119.01 CENTLON: -084.3854641 TRACT CODE: 011901 AREALAND: 1173939
<b>States:</b> STATE CODE: 13 GEOID: 13 CENTLAT: +32.6279417 AREAWATER: 4418749570 NAME: Georgia CENTLON: -083.4165286 AREALAND: 149486234922	<b>2018 State Legislative Districts - Lower:</b> STATE CODE: 13 GEOID: 13057 CENTLAT: +33.7552994 AREAWATER: 101410 NAME: State House District 57 CENTLON: -084.4053217 AREALAND: 30130628	
<b>Combined Statistical Areas:</b> GEOID: 122 CENTLAT: +33.7283603 AREAWATER: 671939141 NAME: Atlanta-Athens-Clarke County-Sandy Springs, GA-AL CSA CSA: 122 CENTLON: -084.3485918 AREALAND: 33807581912	<b>116th Congressional Districts:</b> STATE CODE: 13 GEOID: 1305 CENTLAT: +33.7072227 AREAWATER: 4984703 NAME: Congressional District 5 CENTLON: -084.4014613 AREALAND: 686302641	
<b>County Subdivisions:</b> STATE CODE: 13 COUSUB: 90144 GEOID: 1312190144 CENTLAT: +33.7614875 COUNTY CODE: 121 AREAWATER: 7380138 NAME: Atlanta CCD CENTLON: -084.4705290 AREALAND: 612256244		

## Appendix A - Formatting an input file for Batch Address Processing

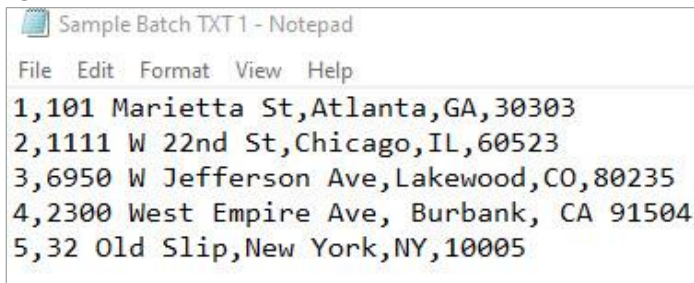
Batch Address Processing the address input file should be in one of the following formats: CSV, XLS, XLSX, Text (TXT) or Data (DAT). Location and Geography addresses that are batch geocoded will have the same output format as the address input file submitted by the user; however, TXT and DAT formats results are in CSV output format. The user will need to create a column in their address file with unique record ID numbers that can be in any order for each address. Header names in the input file must not be included. The output results spreadsheet includes headers assigned by the geocoding process, except for submissions that are in the following formats: CSV, TXT, and DAT. *Figure 16* demonstrates the use of XLS, XLSX, and CSV file formats. It contains the following information: Record ID Number (*Column A*), Street Address (*Column B*), City (*Column C*), State (*Column D*), and ZIP Code (*Column E*).

*Figure 16*

	A	B	C	D	E
1	1	101 Marietta St	Atlanta	GA	30303
2	2	1111 W 22nd St	Chicago	IL	60523
3	3	6950 W Jefferson Ave	Lakewood	CO	80235
4	4	2300 West Empire Ave	Burbank	CA	91504
5	5	32 Old Slip	New York	NY	10005

*Figure 17* shows the format for a Text (TXT) file. The user creates unique record IDs for each address in the file. A comma must be present between each part of the address.

*Figure 17*



```
Sample Batch TXT1 - Notepad
File Edit Format View Help
1,101 Marietta St,Atlanta,GA,30303
2,1111 W 22nd St,Chicago,IL,60523
3,6950 W Jefferson Ave,Lakewood,CO,80235
4,2300 West Empire Ave, Burbank, CA 91504
5,32 Old Slip,New York,NY,10005
```

The City, State, or ZIP Code fields can be blank; however, either the City and State fields or the ZIP Code field must be populated for each address. In *Figure 18*, for XLS, XLSX, or CSV format, when the ZIP Code field (column E) is blank, the City and State fields (columns C and D) must be populated. Conversely, when the City and State fields (columns C and D) are blank, the ZIP Code field (column E) must be populated. *Figure 19* shows the formatting for a Text (TXT) file where the City, State or ZIP Code fields are blank.

Figure 18

	A	B	C	D	E
1	1	101 Marietta St	Atlanta	GA	
2	2	1111 W 22nd St			60523
3	3	6950 W Jefferson Ave	Lakewood	CO	80235
4	4	2300 West Empire Ave	Burbank	CA	
5	5	32 Old Slip			10005

Figure 19

Sample Batch TXT 2 - Notepad

File Edit Format View Help

```
1,101 Marietta St,Atlanta,GA,
2,1111 W 22nd St,,,60523
3,6950 W Jefferson Ave,Lakewood,CO,80235
4,2300 West Empire Ave,Burbank,CA
5,32 Old Slip,,,10005
```

## Appendix B – Available Vintage options based on Benchmark selection

The table below represents options available at the time this User Guide was created. Both the Benchmark and Vintage options change when data is updated for the Census Geocoder. ACS versions change yearly, and census options are changed every ten years when the census is performed.

Benchmark		Vintage selection options
Public_AR_Current		Current_Current
		Census2010_Current
		ACS2017_Current
		ACS2018_Current
		ACS2019_Current
		Census2020_Current
		ACS2021_Current
Public_AR_ACS2021		Current_ACS2021
		Census2010_ACS2021
		ACS2017_ACS2021
		ACS2018_ACS2021
		ACS2019_ACS2021
		Census2020_ACS2021
		ACS2021_ACS2021
Public_AR_Census2020		Census2020_Census2020
		Census2010_Census2020



## Appendix C – Customizing layers returned for a geocoded address

A user can access all available Census Geography for the matched address by adding **&layers=all** to the end of the URL associated with the results. The URL below displays how using **&layers=all** function looks and produces the expanded results.

<https://geocoding.geo.census.gov/geocoder/geographies/onlineaddress?address=101+Marietta+St%2C+Atlanta%2C%2C+30303&benchmark=4&vintage=4&layers=all>

Specific information can also be requested using the **&layers=all** functionality. The tables listed below give names of layers along with an ID number for ACS or 2020 Census vintage. The information in these tables is the most current at the time this User Guide was created. The layer ID numbers may change as the Census Geocoder is updated with new data. A user can choose layers by using the ID associated with the specific layer after **&layers=**. Examples of this feature are shown below. These features are available for One Line or Parsed Address Processing for Geographies and Geographic Coordinate options only.

### Example 1:

If you wanted to return only County (84) and State (86), a user could specify **&layers=86, 84** as shown in the link below.

<https://geocoding.geo.census.gov/geocoder/geographies/onlineaddress?address=101+Marietta%2CAtlanta%2Cga&benchmark=4&vintage=4&layers=86,84>

### Example 2:

If 2018 State Legislative Districts - Upper (56) is the only information to be returned, you would specify **&layers=56** as shown in the link below.

<https://geocoding.geo.census.gov/geocoder/geographies/onlineaddress?address=101+Marietta%2CAtlanta%2Cga&benchmark=4&vintage=4&layers=56>

### Census specific:

Layer Name	ID # for ACS	ID # for Census 2020
Census Block Groups	10	8
Census Designated Places	30	28
Census Divisions	60	58
Census Regions	62	60
Census Tracts	8	6
Census Blocks	12	10
Public Use Microdata Areas	0	N/A
Urbanized Areas	64	N/A
Census Urban Clusters	66	N/A
ZIP Code Tabulation Areas	2	N/A
Voting Districts	N/A	N/A
Traffic Analysis Districts	N/A	N/A
Traffic Analysis Zones	N/A	N/A



Urban Growth Areas	N/A	0
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#### Legislative Districts:

Layer Name	ID # for ACS	ID # for Census 2020
116th Congressional Districts	54	52
113th Congressional Districts	N/A	N/A
111th Congressional Districts	N/A	N/A
2018 State Legislative Districts – Upper	56	54
2018 State Legislative Districts – Lower	58	56
2012 State Legislative Districts - Upper	N/A	N/A
2012 State Legislative Districts - Lower	N/A	N/A
2010 State Legislative Districts - Upper	N/A	N/A
2010 State Legislative Districts - Lower	N/A	N/A

#### Metropolitan & Micropolitan:

Layer Name	ID # for ACS	ID # for Census 2020
Combined Statistical Areas	76	70
Metropolitan Divisions	78	72
Metropolitan New England City and Town Areas	72	66
Metropolitan Statistical Areas	80	74
Micropolitan New England City and Town Areas	74	68
Micropolitan Statistical Areas	82	76

#### New England:

Layer Name	ID # for ACS	ID # for Census 2020
Combined New England City and Town Areas	68	62
New England City and Town Area Divisions	70	64

#### Places:

Layer Name	ID # for ACS	ID # for Census 2020
Counties	86	80
County Subdivisions	22	20
Subbarrios	24	22
Estates	20	18
Consolidated Cities	26	24
Incorporated Places	28	26
States	84	78

#### School Districts:

Layer Name	ID # for ACS	ID # for Census 2020
Elementary School Districts	18	16
Secondary School Districts	16	14
Unified School Districts	14	12

**Tribal:**

<b>Layer Name</b>	<b>ID # for ACS</b>	<b>ID # for Census 2020</b>
Alaska Native Regional Corporations	32	30
Tribal Subdivisions	34	32
Federal American Indian Reservations	36	34
Off-Reservation Trust Lands	38	36
State American Indian Reservations	40	38
Hawaiian Home Lands	42	40
Alaska Native Village Statistical Areas	44	42
Oklahoma Tribal Statistical Areas	46	44
State Designated Tribal Statistical Areas	48	46
Tribal Designated Statistical Areas	50	48
American Indian Joint-Use Areas	52	50
Tribal Census Tracts	N/A	2
Tribal Block Groups	N/A	4

## Appendix D - Acronyms and Terms

Term, Acronym, or Output Field	Definition
ACS	American Community Survey: is an ongoing survey that provides vital information on a 1, 3, or 5-year basis about our nation and its people.
AREALAND	This field provides land area in square meters for the geographic unit and is for statistical purposes only.
AREAWATER	This field provides water area in square meters for the geographic unit and is for statistical purposes only.
BENCHMARK	Refers to the time-period that corresponds to a snapshot of Census data.
BLOCK CODE	This field provides the census block number. Census blocks are uniquely numbered with a four-digit number (0001 to 9999).
CENTROID	The point at the center of any polygon. These points can include state, county, tract, block, or other spatial entity.
CENTLAT	Centroid Latitude: The latitude (Y) coordinate value of the Centroid.
CENTLON	Centroid Longitude: The longitude (X) coordinate value of the Centroid.
CENSUS BLOCKS	Statistical areas bounded by visible features, such as streets, roads, streams, and railroad tracks. Blocks can also be bounded by nonvisible boundaries, such as property lines and city, township, school district, and county limits and short line-of-sight extensions of streets and roads. Census blocks cover the entire territory of the United States, Puerto Rico, and the Island Areas. Census blocks nest within all other tabulated census geographic entities and are the basis for all tabulated data.
CENSUS TRACT	Census Tracts are small relatively permanent statistical subdivisions of a county. These tracts can have up to a six-digit integer number and may have an optional two-digit suffix (if a Census Tract is split or suffixed, each portion may keep the same 4-digit identifier but will be given a unique suffix [.01 to .98]).
CITY	This field provides the city name of the matched address.
COUNTY CODE	This field provides a three-digit code that identifies each county.
CSA	Combined Statistical Area shows combined statistical areas, and identifies their component metropolitan, and micropolitan statistical areas.
GEOID	This field provides the Geographic Identifier. The GEOID consists of numeric values that uniquely identify geographic areas for which the Census Bureau tabulates data. For example, the GEOID for the address <i>101 Marietta St, Atlanta, GA, 30303</i> would be: <i>111210119002015</i> . The first two digits ( <b>11</b> ) are the State Code, the next three digits ( <b>121</b> ) are the County Code, the next six digits ( <b>011900</b> ) are the Tract Code, and the final four digits ( <b>2015</b> ) are the Block Code.
ADDRESS	This field contains the original address that was submitted for geographies-based search.
INTERPOLATION	A way to find values between a pair of data points.
INTERPOLATED COORDINATES	This field contains the longitude (X) and latitude (Y) values based on interpolation of where the input address falls along an address range.

INTERPOLATED LONGITUDE	This field contains the longitude (X) coordinate value based on interpolation of where the input address falls along an address range.
INTERPOLATED LATITUDE	This field contains the latitude (Y) coordinate value based on interpolation of where the input address falls along an address range.
LOWER STATE LEGISLATIVE DISTRICT	Areas from which members are elected to House chambers of the state legislatures.
MATCHED ADDRESS	This field contains the address that matched the original input address. The matched address is based on where the submitted address falls along a Tigerline.
NAME	This field contains the corresponding name that is associated with the specific geography data field. For example, the NAME field for the 2018 State Legislative District – Upper is State Senate District 36.
One Line Address	This field contains the original address that was submitted for location-based searches.
RECORD ID NUMBER	This field contains the Unique ID Number of each address submitted. The output file may return the records in a different order than submitted by the user.
STATE	This field provides the state abbreviation of the matched address
STATE CODE	This field contains the two-digit state code.
STREET NAME	This field contains the name of the street.
STREET PREDIRECTION	This field contains a word preceding the street name that indicates the directional taken by the thoroughfare or the sector where it is located. For example: “123 N MAIN ST E”, the street pre-directional would be “N”.
STREET PREQUALIFIER	A word or phrase in a complete street name that precedes and modifies the street name, but is separated from it by a street name, street pre-type, or a street pre-directional or both. For example: “123 Old Main St”, the Street Pre-qualifier would be “Old”.
STREET PRETYPE	A word or phrase that precedes the street name and identifies a type of thoroughfare in a complete street name. For example: “123 County Road 88”, the Street Pre-type would be “County Road”.
STREET SUFFIX DIRECTION	An abbreviation following the street name that indicates the directional taken by the thoroughfare or the sector where it is located. For example: “123 N MAIN ST E”, the Street Suffix Direction would be “E”.
STREET SUFFIX QUALIFIER	A word or phrase in a complete street name that follows and modifies the name but is separated from it by a street suffix-type, street suffix direction and/or street suffix type. For example: “123 East End Avenue Extended”, the Street Suffix Qualifier would be the word “Extended”.
STREET SUFFIX TYPE	The element of the complete street name following the street name element that indicates the type of street. For example, “123 N MAIN ST E”, the Street Suffix Type would be “ST”.
TIGER	Topologically Integrated Geographic Encoding and Referencing: A digital (computer-readable) geographic database that automates the mapping and related geographic activities required to support the U.S. Census Bureau’s census and survey programs.
TIGER ADDRESS RANGE	This field contains the interpolated address range of the matched address.

TIGER ADDRESS RANGE MATCH INDICATOR	Results indicating if there was a match for the address (Match, tie, no match)
TIGERLINE ID	A Tigerline ID is an assigned ID for a roadway. Based upon and dependent upon the 'side', also provided in the results, a geocode (Census Block) is assigned.
TIGERLINE ID SIDE	This field contains the side of the street that the address range lies on either L (Left) or R (Right).
TIGER MATCH TYPE	This field Indicates if the Matched Address that occurred was: <ul style="list-style-type: none"> <li>• Exact</li> <li>• Non-Exact</li> </ul>
TIGER OUTPUT ADDRESS	This field contains the standardized version of the input address that was used to match to the TIGER address range.
TRACT CODE	This field contains the Census Tract code.
UPPER STATE LEGISLATIVE DISTRICT	Areas from which members are elected to Senate chambers of the state legislatures. For states that have only one chamber of legislature, Census Bureau treats as Upper State Legislative District for data representation.
USPS	United States Postal Service is an independent agency of the executive branch of the United States federal government responsible for providing postal service in the United States, including its insular areas and associated states.
VINTAGE	Census or Survey that the data relates to.
ZIP CODE	A ZIP (Zone Improvement Plan) Code is a five-digit code assigned by the USPS to a section of a street, a collection of streets, an establishment, structure, or group of post office boxes, for the delivery of mail.